



UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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09/613627

EXAMINER
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ART UNIT	PAPER NUMBER
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2834

DATE MAILED:

### INTERVIEW SUMMARY

All participants (applicant, applicant's representative, PTO personnel):

(1) David Satrian (3) \_\_\_\_\_  
(2) Karl Tamal (4) \_\_\_\_\_

Date of Interview 9/20/02 9/23/02

Type: ☒ Telephonic ☐ Personal (copy is given to ☐ applicant ☐ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☐ No If yes, brief description: \_\_\_\_\_

Agreement ☐ was reached. ☒ was not reached.

Claim(s) discussed: 1

Identification of prior art discussed: Maeder

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Proposed Claim  
is a new issue and may be New Matter. The Applicant's argument  
in view of Nasar is not persuasive because of the overly broad description  
of the rotating magnetic field in the Claims.  
- See attached proposed Amendment.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

1. ☐ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A WRITTEN RESPONSE TO THE SUBSTANCE OF THE INTERVIEW.

2. ☐ Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

Examiner Note: You must sign this form unless it is an attachment to another form.

Karl Tamal

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	
	:	
Juergen LINDNER	)	Group Art Unit: 2834
	:	
Application No.: 09/613,627	)	Examiner: Tamai
	:	
Filed: July 11, 2000	)	
	:	
For: RELUCTANCE MOTOR WITH	)	
GEARLESS STEP-DOWN WITHOUT	:	
ELECTRONIC CONTROL OF	)	By E-Mail To: karl.tamai@uspto.gov
ROTATING FIELD	:	

**Proposed AMENDMENT AFTER FINAL**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

The following is presented in response to the final Office Action mailed May 1, 2001, in connection with the above-referenced patent application.

**In the Claims:**

1. (Thrice Amended) Reluctance motor with a stator comprising a three-phase current stator winding with a number of poles for generating a rotary magnetic field without electronic switching, coils being assigned to each of the three phases with the coils being distributed in the slots [over] with each of the coils extending around the entire periphery of the stator and a rotor which is located on a shaft and is made primarily of a ferromagnetic material, the rotor having a predetermined number of angular regions of a like peripheral angular extent which adjoin one another in a circumferential direction of the rotor; wherein slots receiving the three-phase current stator windings are partially closed by circumferentially extending portions of the stator itself; wherein the stator has a preset number of angular regions of the same peripheral angular extent which adjoin one another in a circumferential direction of the stator; wherein each of the predetermined number of angular regions of the rotor has at least one pair of flux guidance regions facing the stator, the flux guidance regions having flux guidance properties which differ in a main direction of the

rotary magnetic field; wherein each of the preset number of angular regions of the stator has at least one pair of flux guidance regions facing the rotor which have flux guidance properties which differ in the main direction of the rotary magnetic field; wherein the flux guidance regions with low magnetic resistance of the stator are located radially inwardly of the partially closed slots; and wherein the preset number of angular regions on the stator differs from the predetermined number of angular regions on the rotor by an integral multiple of the number of poles of the three-phase current stator winding.

#### REMARKS

By the above actions, claim 1 has been further amended. In view of these actions and the following remarks, reconsideration of this application is now requested.

Firstly, the Examiner's attention is directed to the copy of the text, S.A. Naser, *Electromechanics and Electric Machines*, John Wiley & Sons, Inc. 1979, Fig. 6.7 and the description thereof on page 226 submitted with applicant's preceding Amendment of this past January. As can be seen from this standard text and its Fig. 6.7, what is meant by the language that "the coils are distributed in the slots over the entire periphery of the stator" used in this text and adopted in twice amended claim 1 in the January, 2002, Amendment is that each of the coils extends circumferentially around the stator, not that the coils, collectively, are arranged around the entire periphery of the stator. The above language is designed to insure that claim 1 is interpreted consistent with its intended meaning and as that language is used in art. The Maeder, contrary to the Examiner's position, as previously argued does not disclose the present invention since it is not directed to motor having a three-phase current stator winding with a number of poles for generating a rotary field without switching. It is not understood how the Examiner can view Figs. 4-9 of Maeder as representing the production of a rotary magnetic field when it clearly shows the generation of local magnetic fields at facing studs with opposite field directions, and discloses that, according to a phase shift, the strength and the direction of the local magnetic fields at the facing studs change. As a result, a rotary magnetic field does not exist in Maeder's motor. The Examiner's attention is also directed again direct to the showing in Fig. 2 of each winding 4 being wound around a single stud 3 instead of being distributed around the periphery of the stator, i.e., "with each of the coils extending around the entire periphery of

the stator," as proposed above. Because of the difference between Maeder's arrangement and that of the present invention, Maeder produces low torque due to low accumulated magnetic flux, so that it cannot attain the objects of the present invention.

Once you have had an opportunity to study the above, please give me a call at (703) 770-9315; however, please note that I will be in a meeting from 10 a.m. to noon today, 9/20.